UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,940	06/20/2000	Edward G. Tiedemann JR.	QCPA 189CIPC2	5538

23696 7590 02/04/2002

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER
CORRIELUS, JEAN B

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 02/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/597,940	Tiedemann et al
Examiner	**Art Unit**
Jean B. Corrielus	2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Dec 26, 2001

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-7, 9-11, and 15-22 is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-7, 9-11, and 15-22 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 recites the limitations of "determining the **cause of transmission power increase**, wherein the **cause of the transmission power increase** is **a random fade** condition or a **genuine fade** condition, if the cause of the transmission power increase is a **random fade condition, then reducing the transmission power at a first predetermined rate for a first predetermined time period in response to the transmission power increase**; if the cause of the transmission power increase is a **genuine fade condition, maintaining the transmission power**, however, there is no support for such limitations as claimed. The disclosure at page 5, lines 14-18 only teaches that the base station examines the pattern of incoming power control message to determined characteristics of the fade and use the estimated fade to control changes

that need to be made. Claim 15 recites the limitations of " **adjusting** said transmission **power in accordance** with **said power control commands** and **said power control step size**." However, the specification, as filed does not provide support for such limitations as claimed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson in view of English et al US Patent No. 5,528,593.

Henriksson discloses a method and apparatus having the capability of controlling transmission power of variable rate frames of data comprising: means 4, considered broadly as the control processor means for providing a transmit power signal, a variable gain transmitter means 7 for receiving the transmit power signal and for amplifying said variable rate frames in accordance with the transmit power signal and a rate of said variable rate frames of data generated by means 6, means 6 considered as the variable data source for providing said variable rate data frames and said frames signal.

However, Henriksson fails to explicitly teach that the control processor determines a reference rate transmit power level and at least one additional transmit power level in accordance with said reference rate transmit power.

In the same field of endeavor, English et al discloses et method and apparatus for controlling power in a variable rate communication system generating a reference rate transmit power level for a full rate transmission and at least one additional reference power level in accordance with the reference rate transmit power level see col. 5, lines 12-30.

It would have been obvious to one skilled in the art to incorporate English et al into Henriksson as it would have provided the system with the capability to transmit the signal information at different power level. Such combination would have also reduced power consumption since only parts of the frame containing data would have been transmitted (English et al col. 2, lines 1-4).

As per claim 10, Henriksson teaches a demultiplexer 5 having an input for receiving a frame quality message and the processor 4 is responsive to the frame quality message see fig. 1.

As per claim 11, it would have been obvious that the variable gain transmitter of Henriksson would have included a gain selector so as to selectively amplify the transmitted signal as to provide more amplification to the weakest signal and less amplification to the strongest signal.

Response to Arguments

5. Applicant's arguments filed 12/26/01 have been fully considered but they are not persuasive. It is asserted that the disclosure provides support for claimed subject matter of' determining the **cause of transmission power increase**, wherein the **cause of the transmission power increase** is **a random fade** condition or a **genuine fade** condition. However, such portion of the specification referred to by applicant, does not provide support for such limitation as claimed. Such portion of the specification, only teaches that "the base station will determine whether **the error reported** by the mobile station was of **a random nature** or a **genuine fade condition**". Applicant argues that the specification at page 11, line 25-38 provides support for the claimed subject matter of " **if the cause** of transmission **power increase** is a **random fade condition**, then reducing the transmission power at a first predetermined rate for a first predetermined time period **in response to** the transmission **power increase**". However, such support can't be found. The section of the specification referred to by applicant only teaches, specially at page 11, lines 28-31 that "the base station holds the transmission at that transmission energy for a predetermined delay period then reduces the transmission energy at a swiftly decreasing rate for a predetermined number of frames " and the base station 50 keeps on decreasing the transmission energy until it reaches some minimum value. Clearly, such portion of the specification however, does not teach that "**if the cause** of transmission **power increase** is a **random fade condition**, . . . , reducing the transmission power . . . **in response to** the transmission **power increase**". Applicant also states that the specification at page at page 12, lines

15-22 provides support for the following claimed subject matter **of"if the cause of transmission power increase** is a **genuine fade condition**, then **maintaining the transmission power**". It is noted however, that the portion of the specification referred to only teaches that "if the propagation channel suddenly worsens, the base station 50 will receive a series of consecutive power control request, and there will be a delay the power adjustment request . . . During this delay, the base station should not continue to increase the transmission energy for each received power adjustment request". In other word, the base station maintains the transmission energy during a **delay** period during which the power adjustment request is not responsive to change in the forward link transmission energy. Applicant states that the specification at page 13, lines 17-21 provides support the claimed subject matter of "**adjusting the transmission energy** of said communication station **in accordance** with the closed loop **power control** commands **and** said **power step size**". However, the portion of the specification pointed out by applicant does not teach that the transmission power is adjusted using both **power control commands** and a **power control step size**.

It is alleged that English does not teach two reference rate power levels. However, it is noted that English teaches a reference power level and a plurality of additional power levels ½, 1/4, and 1/8 related to the first power level see for instance fig. 2 and col. 5, lines 12-30.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 305-872-9314, (for formal communications; please mark "EXPEDITED PROCEDURE") and (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is (703) 305-4023. The examiner can normally be reached on Monday-Thursday from 7:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (703) 305-4378.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Jean B. Corrielus 1-28-02

Primary Examiner

TC-2600